CLAIMS

We claim:

1. A method of presenting data regarding products comprising:

assigning feature categories to each product category based on available data;

assigning a weighted importance to each feature category of each product category based on available data;

ranking items in the product category according to the weighted importance of the feature categories included in each item

receiving a selection of at least one feature category for a product type;

assigning a greater weight to the selected category; and

providing a ranked list of products based on the selected feature categories.

2. The method of claim 1 wherein assigning a weighted importance to each feature category comprises assigning a score between 0 and 100 to each feature category in a product category.

3. The method of claim 1 further comprising allowing a user to choose at least one feature category of importance to the user and ranking the items within the product category based on the feature category chosen by the user and the weighted importance of the feature categories of each item.

4. The method of claim 1 further comprising:

assigning a tag of essential_feature_category to each essential feature category of each product category based on available data;

assigning a relation type of is_a_kind_of to each product category if the product category includes all of the feature categories having the tag of essential_feature_category of another product category and includes at least one feature

category that the other product category does not have wherein the product category is labeled a child category of the other product category and the other product category is labeled a parent category of the child product category;

creating links within each product category to reflect the assigned is_a_kind_of relation; and

using the is_a_kind_of relation to create at least one hierarchical product category tree wherein each hierarchical category tree has a heading product category that is only a parent category and changing the assigned weighted importance of a feature in the parent category changes the assigned weighted importance of the feature in the child category.

5. The method of claim 4 wherein the assigned weighted importance of a feature in a child category overrides weighted importance assigned to the feature in the child category's parent category.

6. The method of claim 1 further comprising:

assigning a property type to each feature category;

assigning evaluative metrics to each feature in each feature category based on the feature category property type and available data unless the property type is a discrete property type

wherein items in each product category are ranked based on each item's evaluative metrics.

7. The method of claim 6 further comprising allowing a user to choose at least one feature of importance to the user and ranking items within a product category based on the chosen feature, the weighted importance of the feature categories and the evaluative metrics of the features within each feature category.

8. The method of claim 6 wherein assigning the property type comprises:

assigning a property type of numerical_property if the features in the feature category are measured in a quantitative way;

assigning a property type of enumerated_property if the features in the feature category have a fixed number of specified values including

assigning a sub-property type of discrete if one feature in a feature category is not inherently more valuable than another,

assigning a sub-property type of scalar if one feature in a feature category is inherently more valuable than another

assigning a sub-property type of Boolean if the features in a feature category may have a valuation of only yes or no;

assigning a sub-property type of qualified_Boolean if the feature in a feature category may have a valuation of yes, no, or optional; and

assigning a property type of text_property if the features in the feature category are represented by free form text.

9. The method of claim 6 further comprising:

assigning a special meta-tag to a cluster of feature categories based on groupings derived from available literature if the features of the categories may have a value consisting of one of: yes, no or optional.

10. The method of claim 9 further comprising:

ranking items within a product category by the number of feature categories represented in an item within a cluster of feature categories.

11. The method of claim 6 further comprising assigning a evaluative tag of forward_metric to a feature category if a value of an item in a product category increases

as a numerical valuation of features within the feature category increases based on available data;

assigning a evaluative tag of backward_metric based on available data to a feature category if the value of an item in a product category decreases as numerical valuation of features within the feature category increases; and

assigning a evaluative tag of non_applicable based on available data to a feature category if the value of an item in a product category does not change with numerical valuation of features within a feature category

wherein the evaluative tag is used to rank items in a product category.

12. The method of claim 6 further comprising presenting a user with a choice of at least two feature categories for sorting;

sorting items within a product category according to the user chosen feature categories, the weighted importance of all the feature categories and the evaluative metrics of the feature categories applied to the features within the feature categories.

13. The method of claim 1 further comprising deriving ranges of values within feature categories from available data to determine natural ranges for grouping numerical features.

14. The method of claim 13 further comprising presenting a user with sub-ranges of values within feature categories for filtering product data to be presented.

15. The method of claim 1 further comprising applying statistical analysis to derive the placement of an item within a product category with respect to at least one feature category.

16. The method of claim 15 wherein statistical analysis is applied to derive the placement of an item within a product category with respect to two feature categories.

17. The method of claim 15 further comprising graphing the placement of an item within a product category.

18. The method of claim 17 further comprising presenting the user with a graph of the placement of a user chosen item with respect to other items in a product category based on the at least one feature category.

19. The method of claim 1 further comprising:

assigning relation types to each product category to relate each product category to at least one other product category if a related product category exists including

assigning a relation type of is_a_kind_of if a product category shares all the feature categories of another product category and has at least one feature category that the second product category does not have,

assigning a relation type of is_a_part_of if items in a product category are used only by inclusion in items in a second product category,

assigning a relation type of is_an_accessory_for if items in a first product category are used only in conjunction with a second product category although the items in the second product category may be used without the items in the first product category,

assigning a relation type of is_a_resource_for if items in a first product category are used only in conjunction with items in a second product category and must be replaced or replenished; and

creating links within each product category to reflect each assigned relation type.

20. The method of claim 19 further comprising creating hierarchical category trees using the is_a_kind_of relation type assignments wherein each hierarchical category tree has one product category that is only a parent category.

21. The method of claim 1 wherein the items in each product category are items offered for sale by merchants.

22. The method of claim 1 wherein the items in each product category are items offered for sale on the internet.

23. The method of claim 1 further comprising assigning a weighted importance to buying information categories of each item based on available data and ranking merchants offering each item based on the weighted importance of the buying information categories.

24. The method of claim 23 further comprising assigning evaluative metrics to the buying information categories of the product categories and ranking the merchants offering each item based on the weighted importance of the buying information categories and evaluative metrics of the buying information categories.

25. The method of claim 23 wherein the buying information categories include price, shipping costs, shipping method and availability.

26. The method of claim 1 further comprising:

allowing a user to choose an item from a list of items in a product category; and

displaying the merchants selling the chosen item.

27. The method of claim 26 further comprising displaying buying information for each merchant selling the chosen item.

28. The method of claim 26 further comprising displaying the merchant buying information in a ranked list wherein the merchant buying information is ranked according to a weighted importance assigned to each buying information category and evaluative metrics applied to each buying information category based on available data.

29. A method of presenting data regarding products comprising:

assigning feature categories to each product category based on available data;

assigning a property type to each feature category;

assigning evaluative metrics to each feature in each feature category based on the property type and available data unless the property type is a discrete property type

wherein items in each product category may be ranked based on each item's evaluative metrics.

30. A system for presenting data regarding products comprising:

means for assigning feature categories to each product category based on available data;

means for assigning a weighted importance to each feature category of each product category based on available data;

means for ranking items in the product category according to the weighted importance of the feature categories included in each item

means for receiving a selection of at least one feature category for a product type;

means for assigning a greater weight to the selected category; and

means for providing a ranked list of products based on the selected feature categories.

31. A computer readable storage medium containing executable computer program instructions which when executed cause a digital processing system to perform a method for presenting data regarding products, said method comprising:

assigning feature categories to each product category based on available data;

assigning a weighted importance to each feature category of each product category based on available data;

ranking items in the product category according to the weighted importance of the feature categories included in each item

receiving a selection of at least one feature category for a product type;

assigning a greater weight to the selected category; and

providing a ranked list of products based on the selected feature categories.